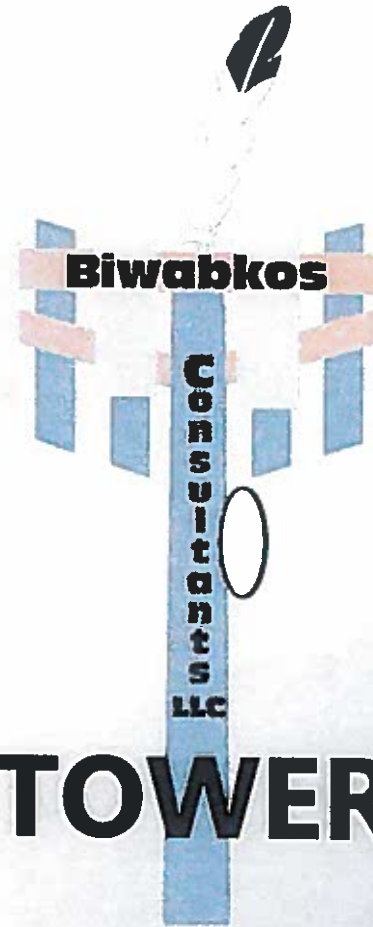


WIRELESS NETWORK CONSULTING



RF Justification

857736 RELOCATION TOWER

RECEIVED

MAY 29 2019

PLANNING BOARD
GRAFTON, MA

EXHIBIT 3

COPY

2019

Relocation tower project

† Existing Site

- 90' Monopole

- Latitude: 42.22858333 Longitude: -71.69011111
- 20 Indian Path
- Grafton, MA 01519
- Tenants: Verizon, AT&T, Sprint

† New Site

- 143' Monopole Tower

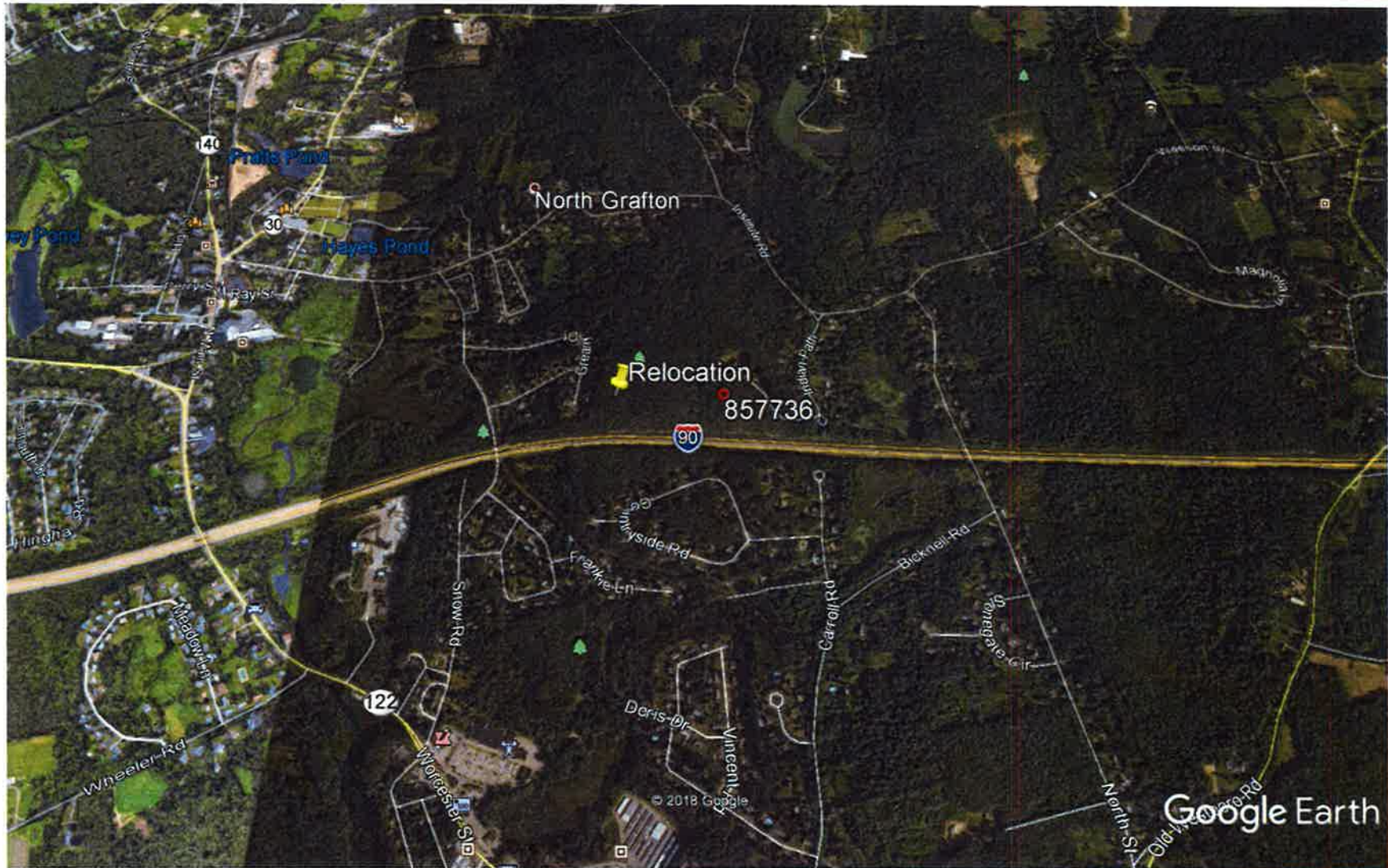
- Latitude: 42.212144 Longitude: -71.693686
- 84 Snow Road, Grafton
- Grafton, MA 01519
- Tenants: Verizon, AT&T, Sprint

Site Relocation Objective

† Primary coverage objective

- Loss of site causes decrease in coverage and capacity along I-90 and Hwy 122
- Loss of site causes decrease in suburban and rural property coverage
- Design goal of relocation site is to move site to new location while maintaining existing coverage and capacity in area surrounding site
- Design goal of relocation site is to minimize negative impact to neighbor sites
- If the relocation site is not allowed to be built coverage and capacity for voice and data services will be reduced for all carriers on the tower

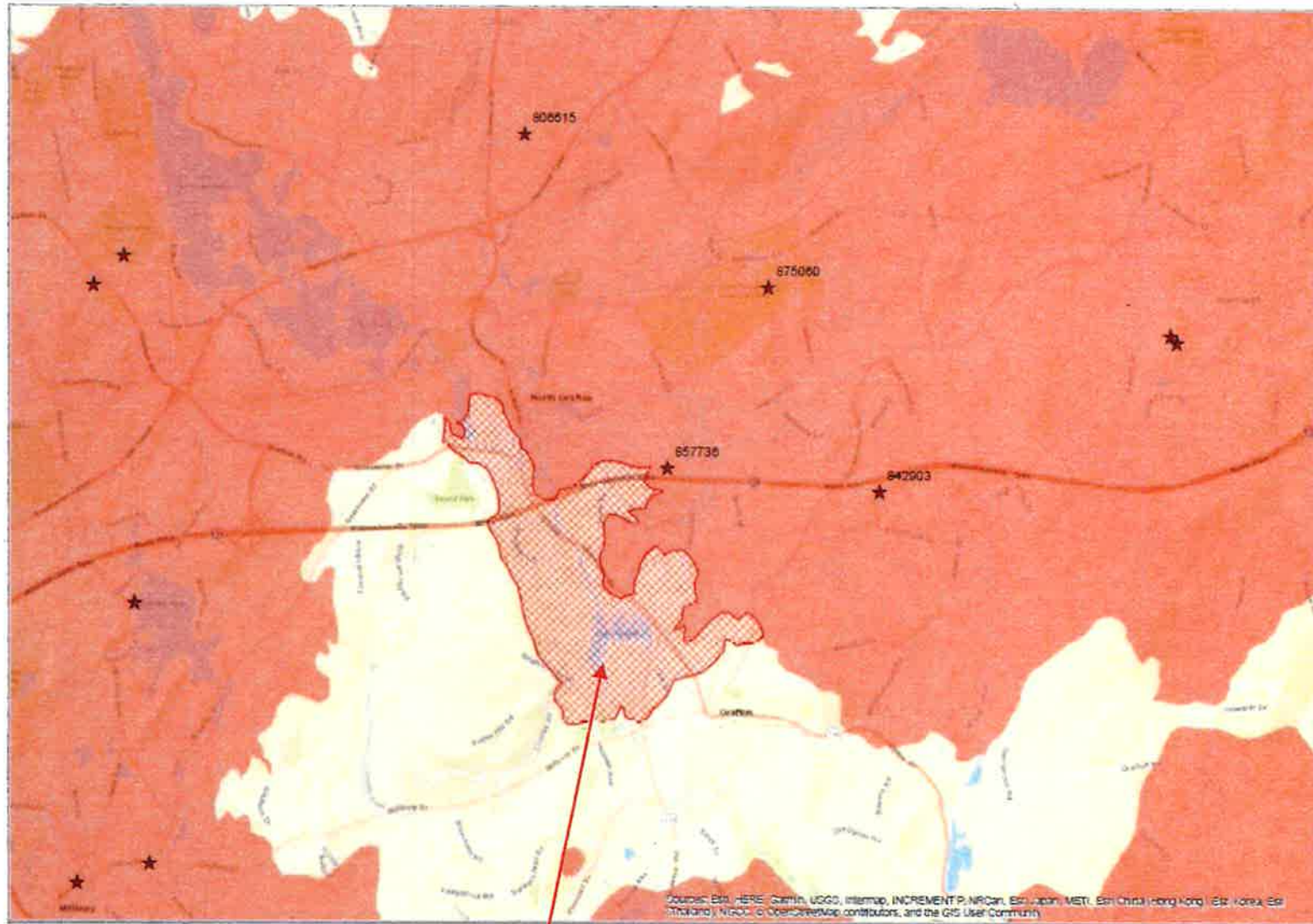
Site Locations



Existing Verizon Coverage



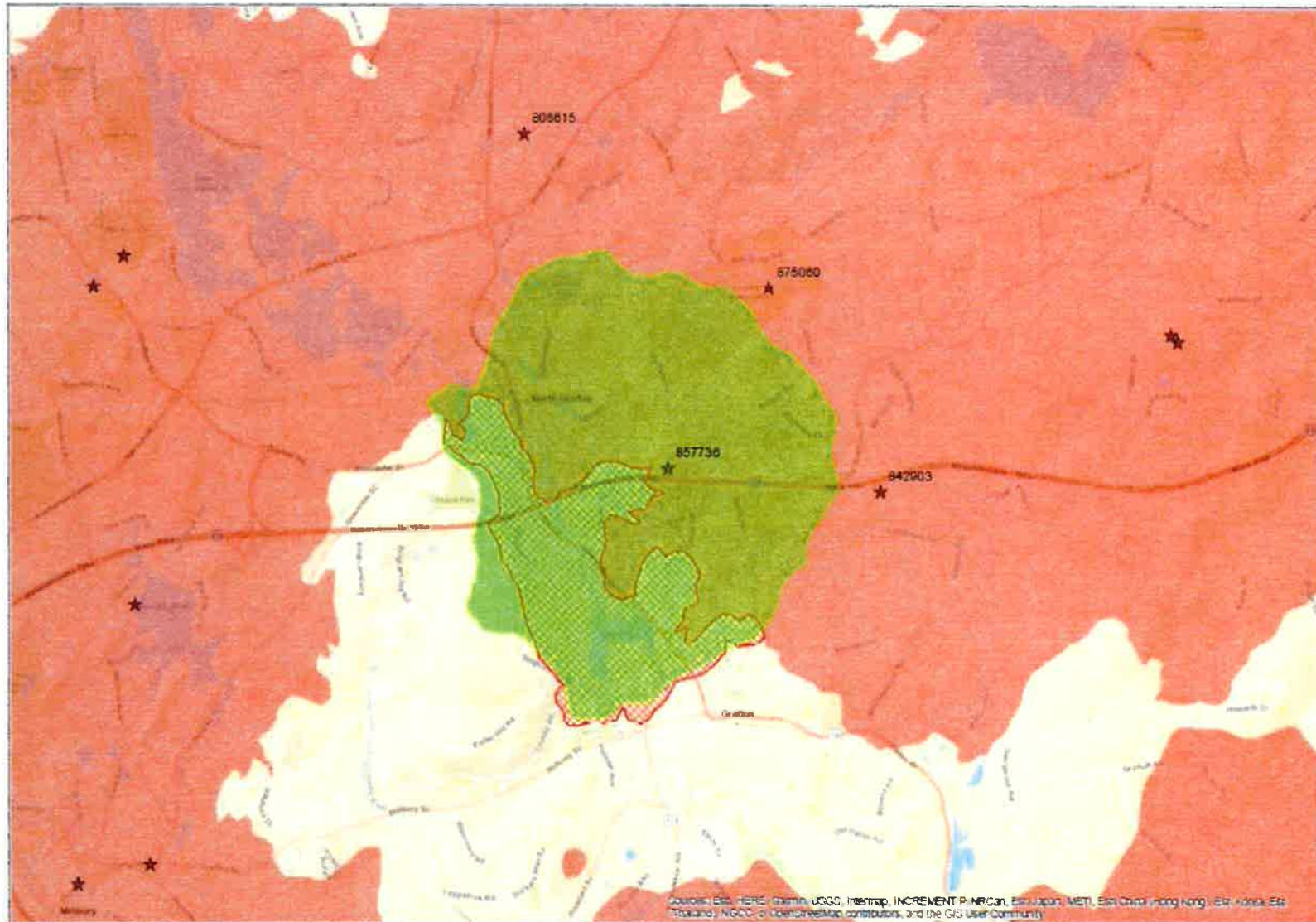
Verizon Coverage without relocation



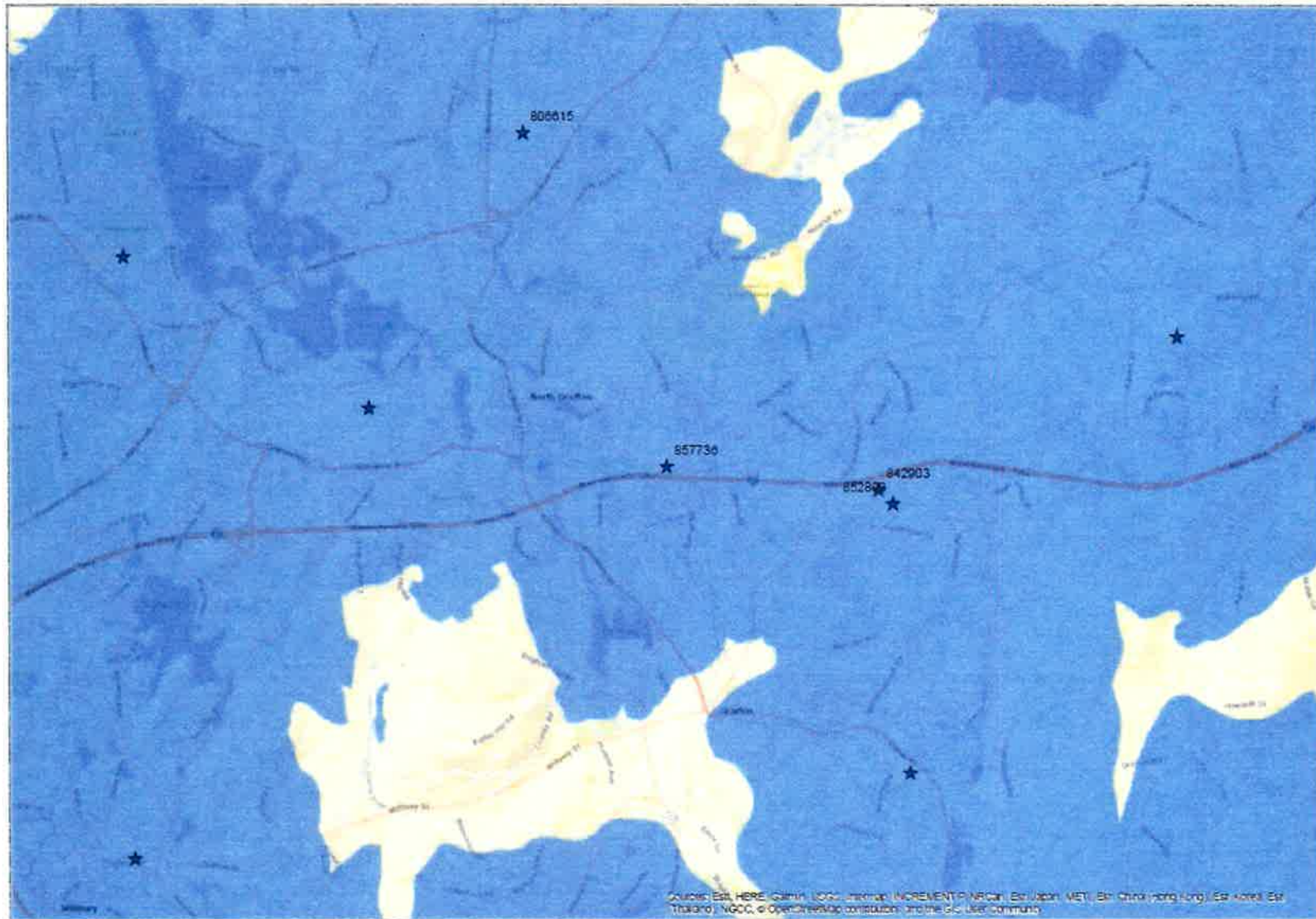
Loss of coverage

2019

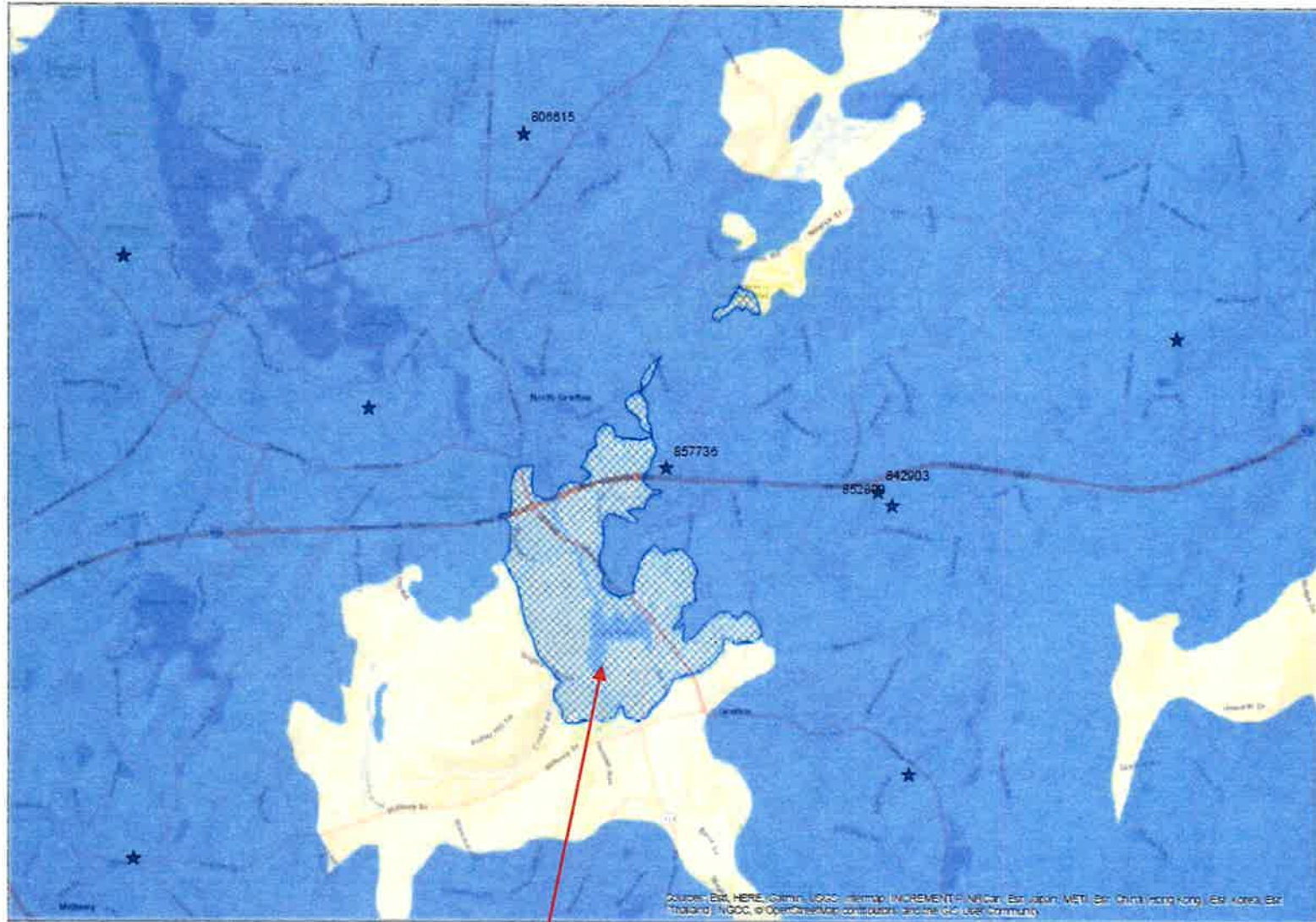
Verizon coverage with relocation



Existing AT&T Coverage

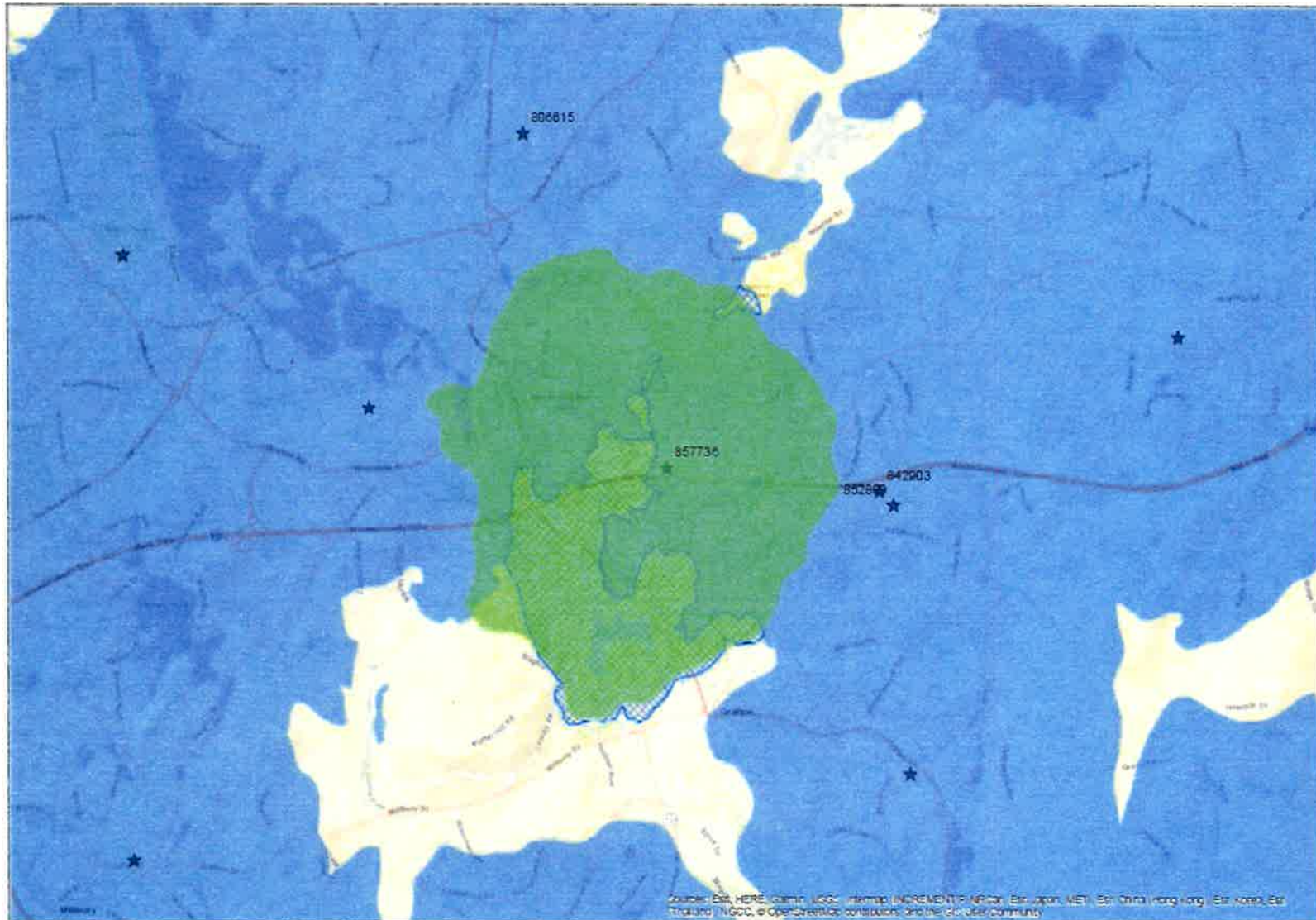


AT&T Coverage without relocation

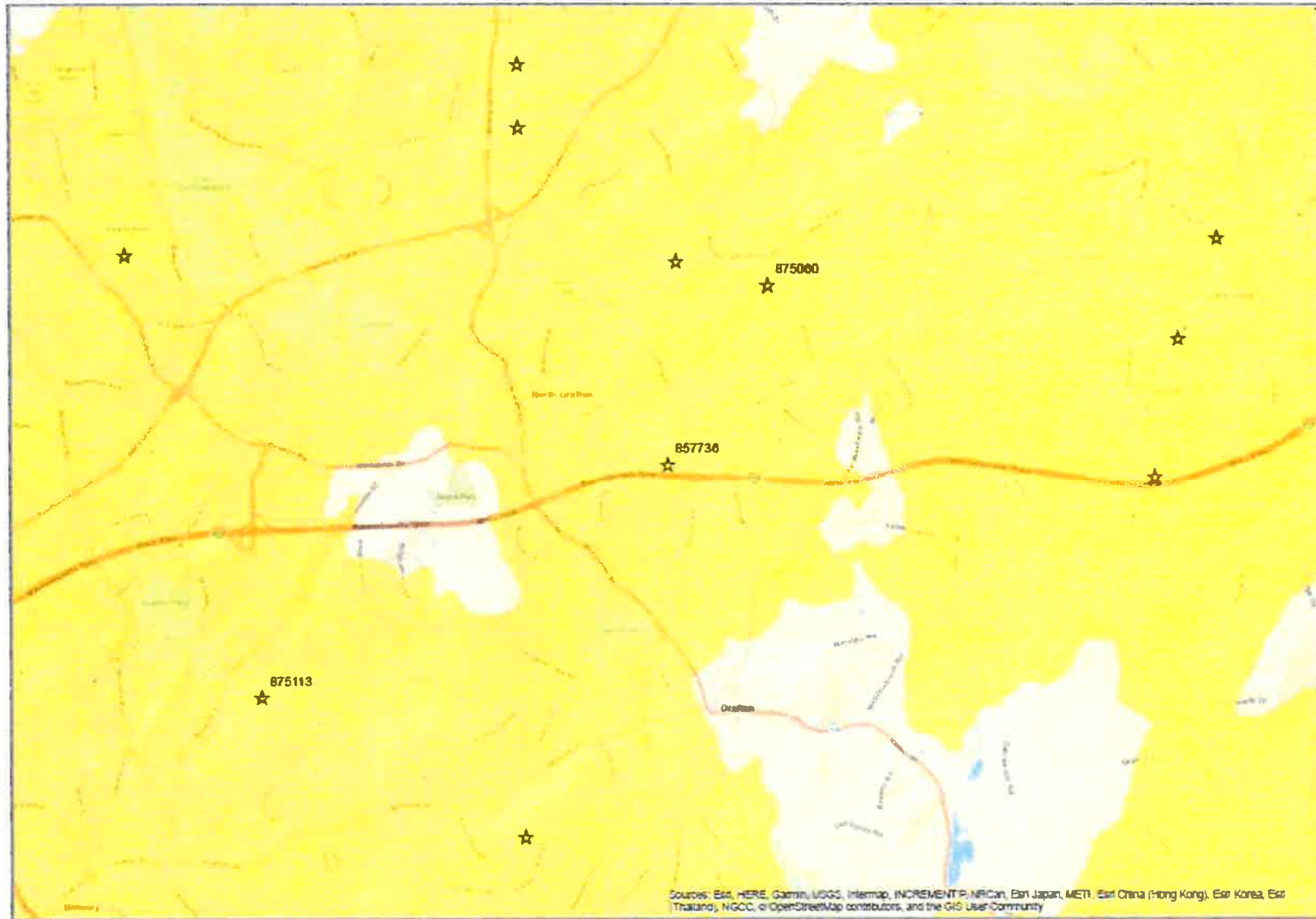


Loss of coverage

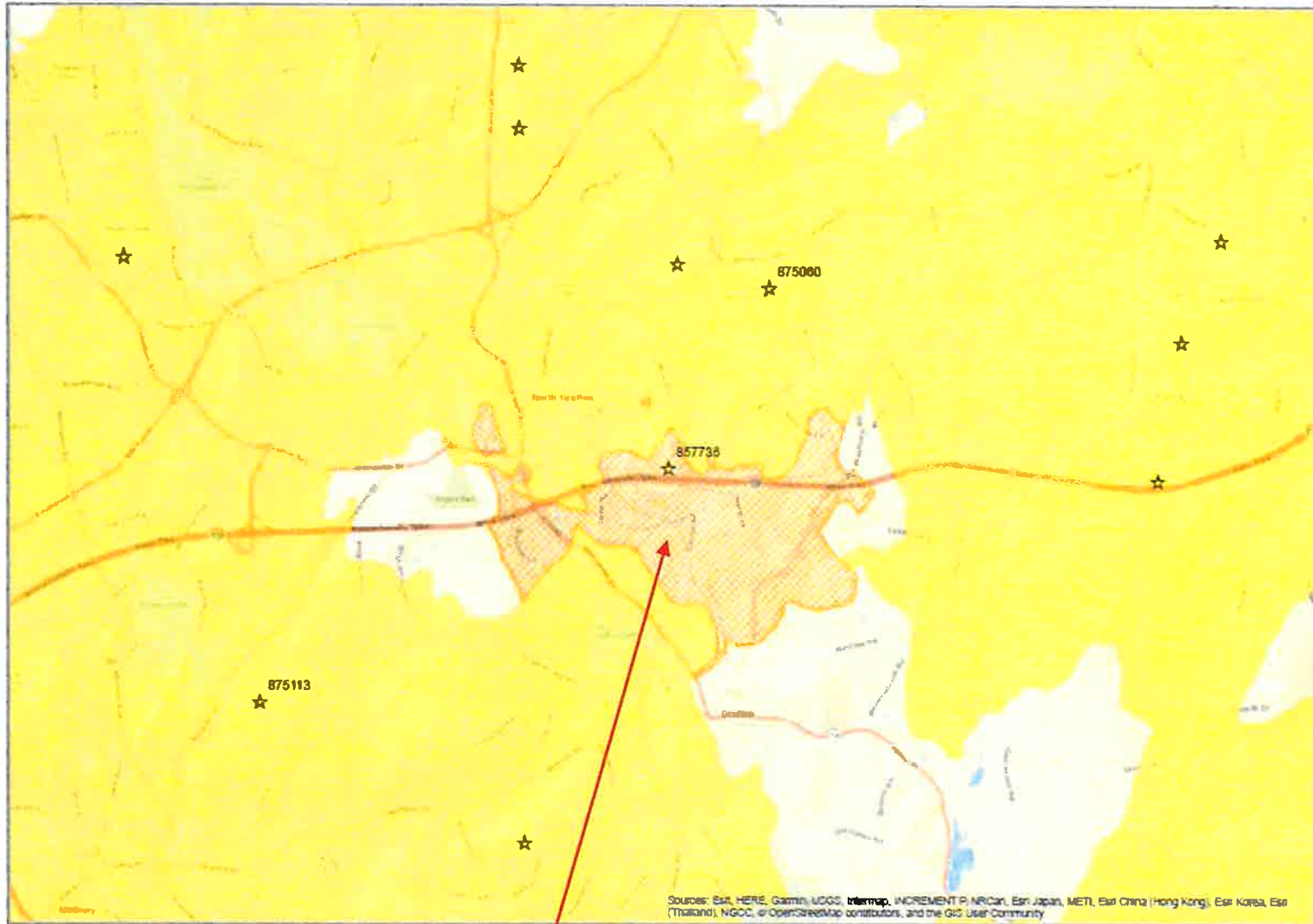
AT&T coverage with relocation



Existing Sprint Coverage

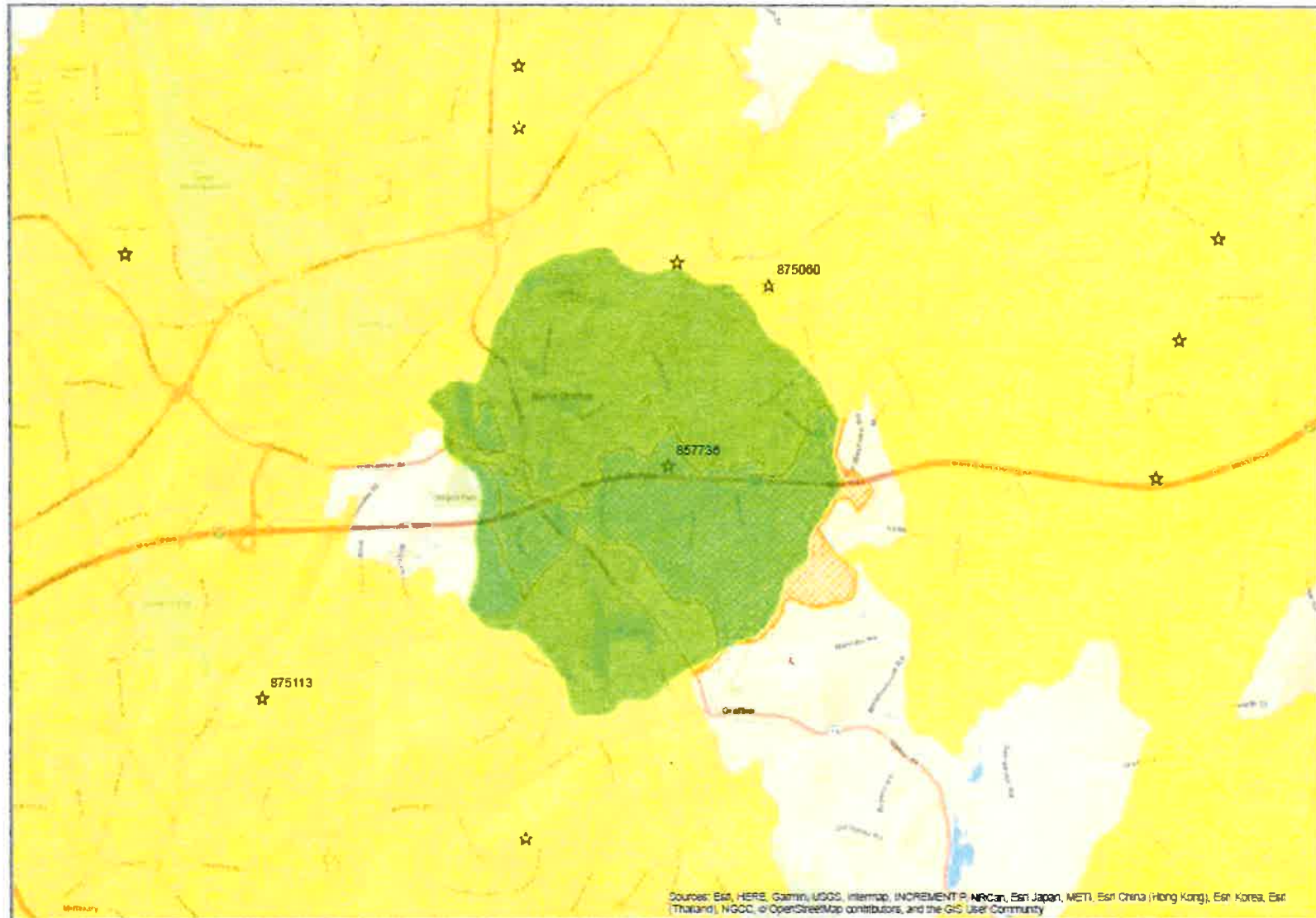


Sprint Coverage without relocation



Loss of coverage

Sprint coverage with relocation

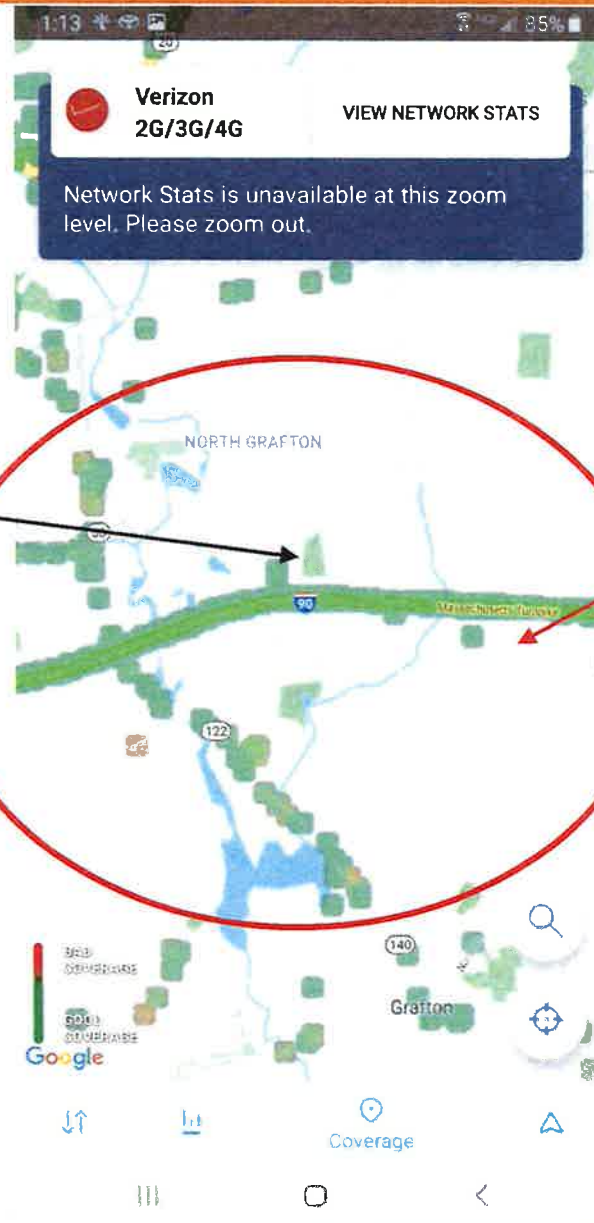


Open Signal – Verizon Coverage Map

Green – Good Coverage

Red – Poor Coverage

Proposed Site Location



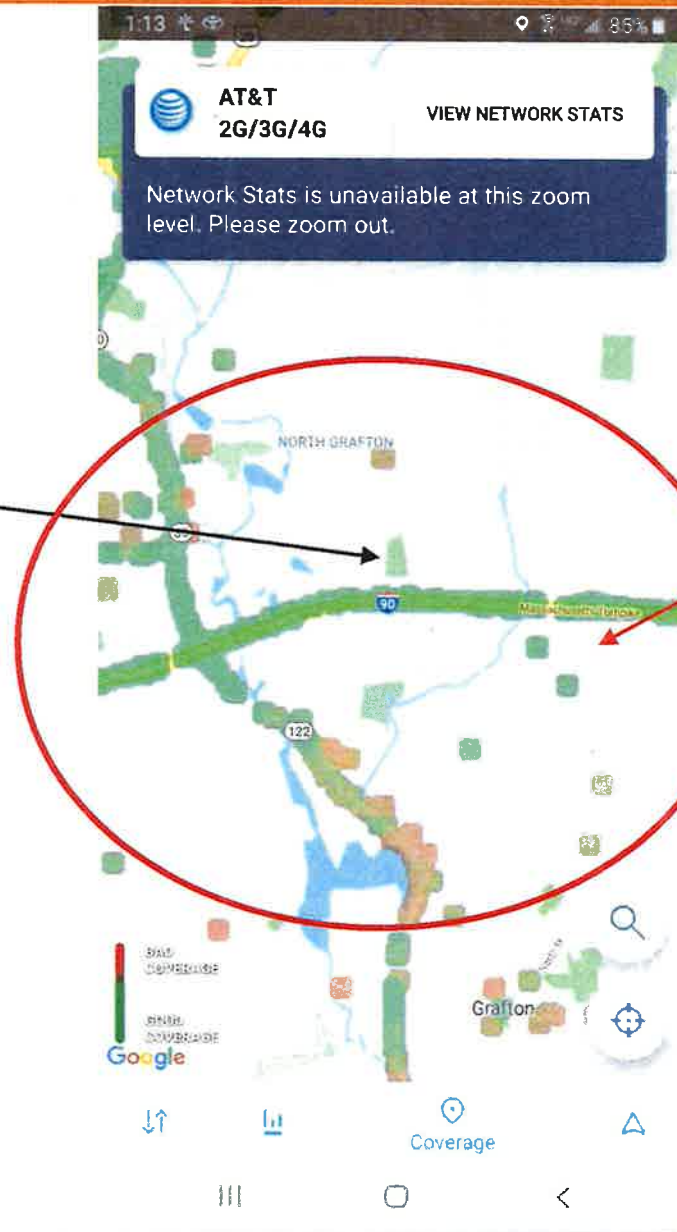
Coverage Area Impacted

Open Signal – AT&T Coverage Map

Green – Good Coverage

Red – Poor Coverage

Proposed Site Location



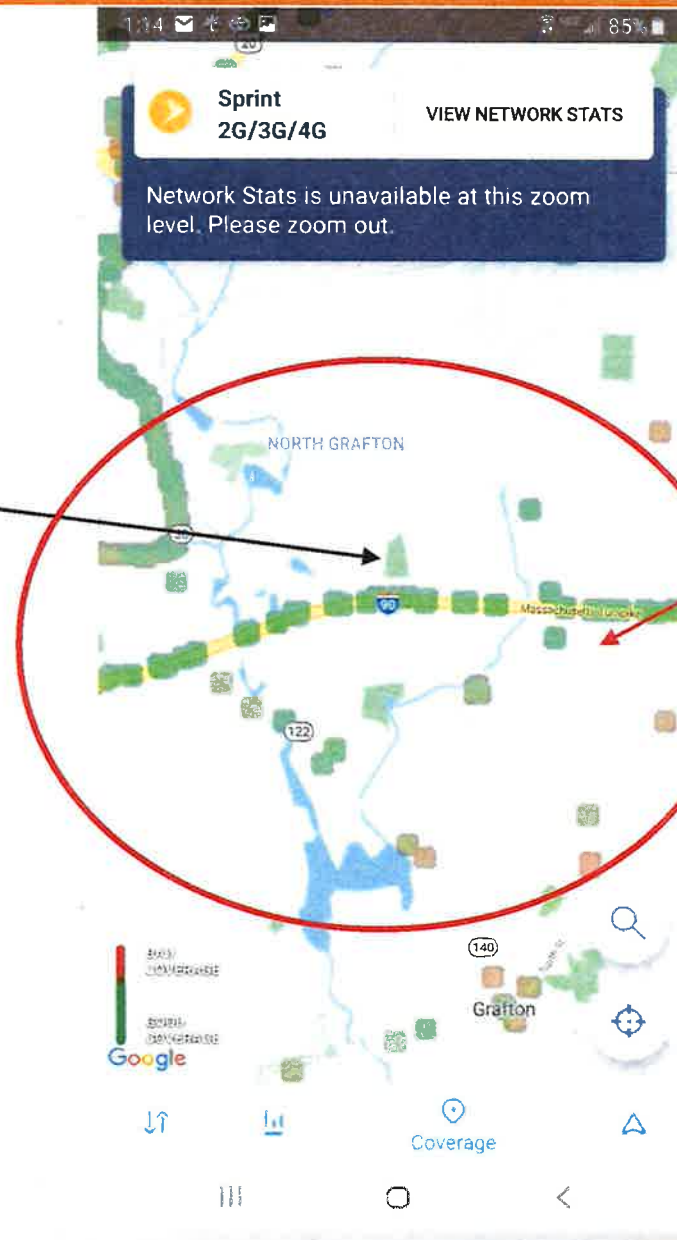
Coverage Area Impacted

Open Signal – Sprint Coverage Map

Green – Good Coverage

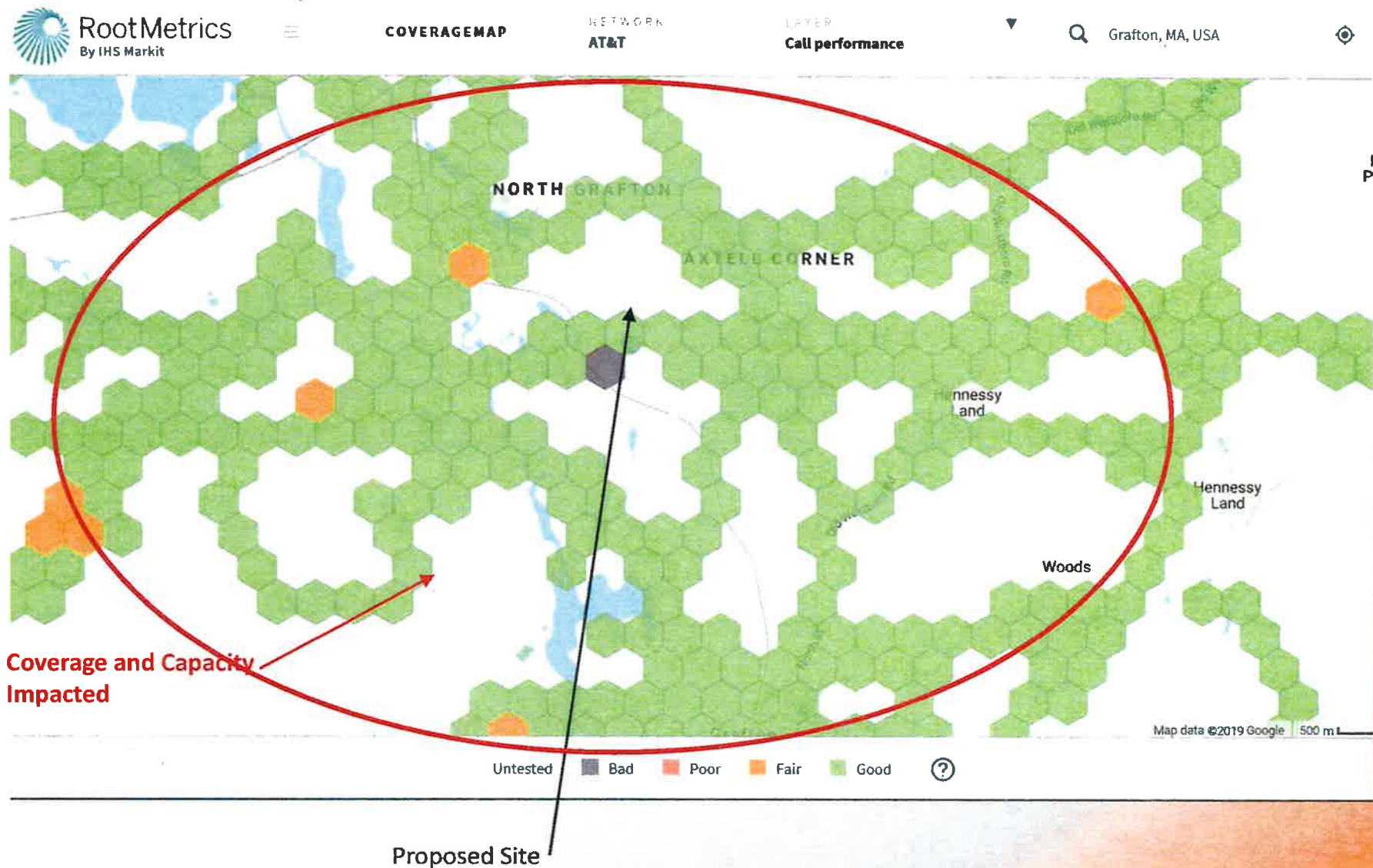
Red – Poor Coverage

Proposed Site Location

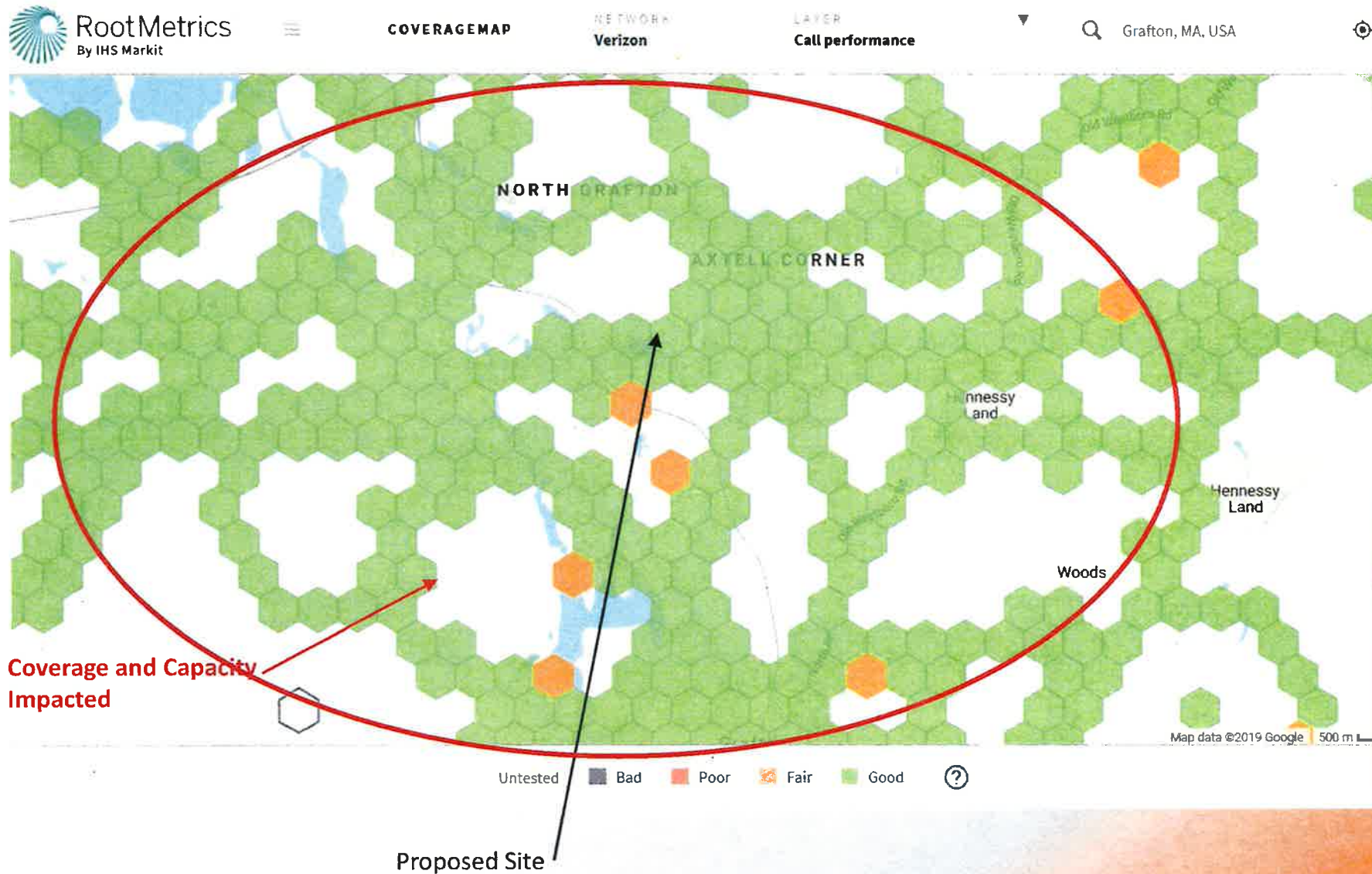


Coverage Area Impacted

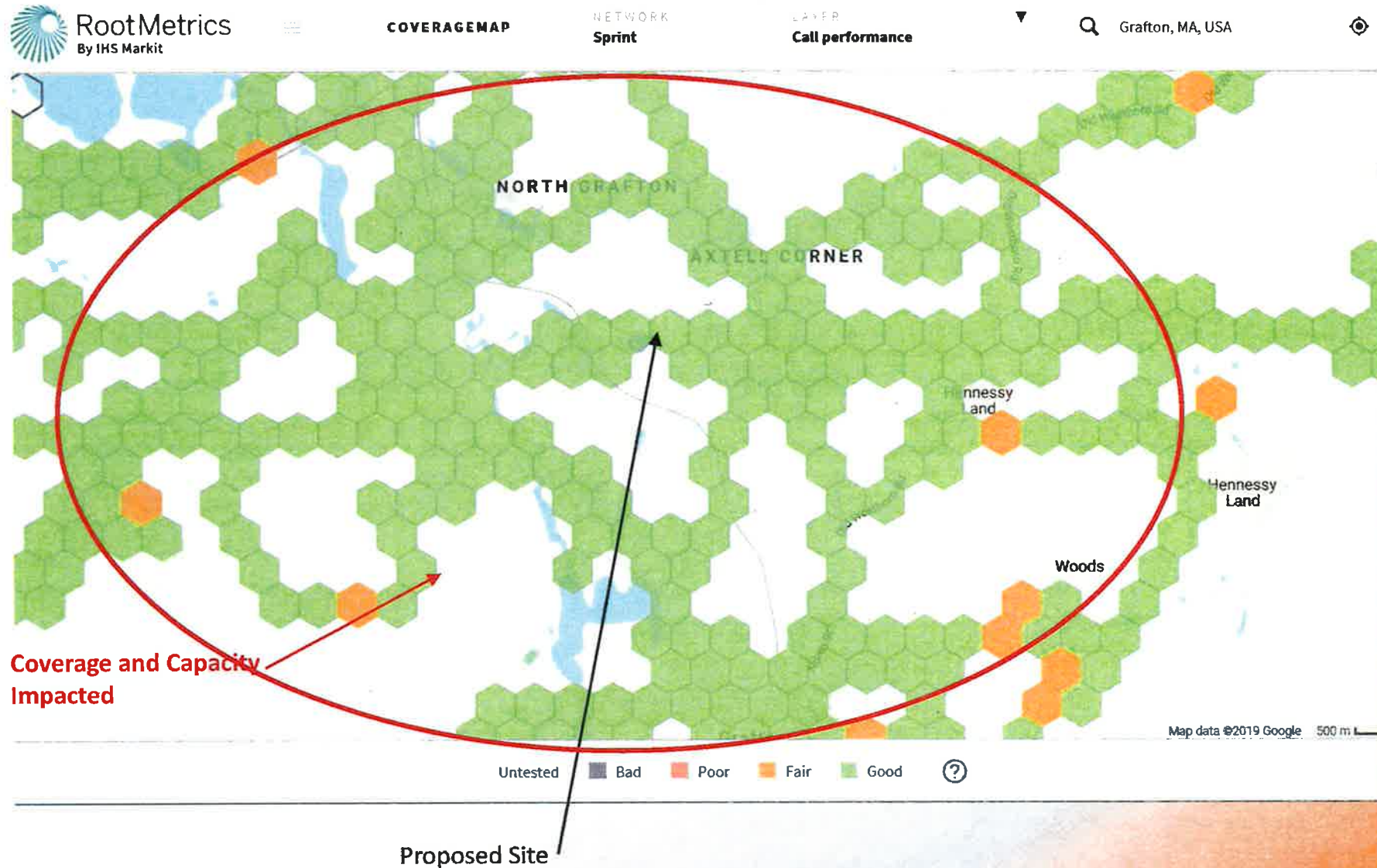
RootMetrics – Current AT&T Coverage



RootMetrics – Current Verizon Coverage



RootMetrics – Current Sprint Coverage



Site Relocation Summary

† Primary coverage objective to cover I-90 and Hwy 122

- Loss of existing site will severely impact existing wireless coverage/services for (3) carriers wireless customers
- Site provides coverage for most of Grafton and North Grafton
- Site provides coverage for I-90
- Site provides coverage for Hwy 122